



# **Issues With the Current TCR: EPA's Perspective on Implementation Issues with the TCR**



**Total Coliform Rule /  
Distribution System  
Stakeholder  
Technical  
Workshop**

February 1, 2007

J. Kevin Reilly  
U.S. EPA  
Region 1, New England



# Implementation Issues

- Monitoring Locations
- Frequency of Sampling
  - Routine
  - Repeat
- Sample Timing
- Laboratory
- Corrective Actions





## Monitoring Locations

- Sampling location is flexible, a State-water supplier determination
- Consequently sampling location criteria can differ significantly from State to State, water supplier to water supplier
- Plan should be reviewed during Sanitary Survey. Sometimes not done, therefore not updated despite changes to the system



## Monitoring Locations (Cont.)

- Should sample represent system as a whole **OR** should areas most likely to be contaminated be targeted?
- “...representative of water throughout the distribution system...”
  - “representative” has been interpreted as:
    - Population density
    - Geographic distribution
    - Water quality difference
    - Other parameters
- **OR** Target areas most likely to be contaminated?



## Monitoring Locations (Cont.)

- Use outside spigots **OR**
- Use of dedicated total coliform taps **OR**
- Taken from taps within buildings (homes, public offices, police, fire, etc.)
- Time to flush a line before taking the sample will vary between water suppliers
- Repeat sample site of 5 up / downstream can be challenging



# Frequency of Sampling

- Routine
  - Frequency of sampling will vary based on size of the system
  - Large vs Small

NYC	7,000,000 pop	480 samples/month
Boston	2,300,000 pop	1,300 samples/month
Very small system	< 500 pop	1 sample/quarter allowed
Seasonal systems		Start up system before 1 <sup>st</sup> sample taken



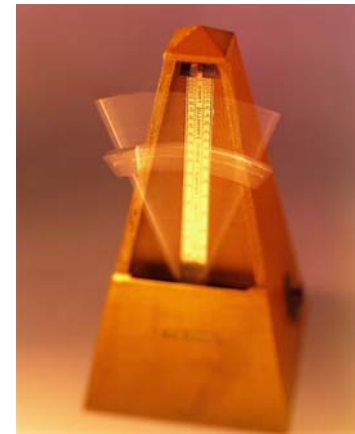
# Frequency of Sampling (Cont.)

- Repeats
  - Repeat sample taken one week after routine positive sample
  - Some systems have sampled more heavily at “clean” sites under a repeat scenario
  - Repeats can help determine if it is a localized / building problem





# Sample Timing



- Sampling time can impact result (Monday vs late week – ex. school/office closed over weekend)
- Beginning of month take samples **vs** throughout the month
- End of month samples can lead to confusion regarding repeat samples being collected at the beginning of the next month





# Laboratory

- Availability of labs on weekends
- Location of labs in relation to remote water supplies
- Holding time of sample can be an issue
- Should some of the “older” methods continue to be used, the ones that can take multiple days to determine coliform positive
- No specified time frame for labs to report results





# Corrective Actions

- No corrective action required in rule
- It is implied the water supplier and State will investigate and correct but no specified action is required except PN





## Corrective Actions (Cont.)

- Idea of monitoring freq and location is to determine the underlying reasons of the TC recoveries
- Translate monitoring results into Corrective Action, best management practices